PHMC Lessons Learned Fluor Hanford Inc.

Caution Bulletin

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Title: Asbestos Controls Did Not Meet Requirements

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Lessons Learned Summary: Exposure to airborne asbestos fibers presents serious risks to workers for future asbestosis, mesothelioma, and lung cancer. Because of those serious consequences and to meet OSHA requirements, appropriate work practices and controls must be used during construction work with asbestos containing materials (ACM).

Discussion of Activities: This bulletin discusses two instances at Hanford where required asbestos exposure protections were not utilized. Both events could have easily been prevented had workers and supervisors had better awareness of the requirements and paid closer attention to the controls in place for the jobs.

Case 1: A structure in the B-Plant Lay-Down Yard containing both ACM thermal system insulation and ACM floor tile was to be demolished. After the ACM thermal system insulation was abated, misunderstood verbal communications led workers to believe that all the asbestos hazards were removed. Site personnel applied a fixative and used wetting sprays as dust control measures during the demolition. Six months later while planning demolition of another facility, facility personnel became aware that demolition of a structure with in-place (not removed) ACM, such as ACM floor tile, is an OSHA construction Class II asbestos work activity (per 29CFR 1926.1101 and HNF-RD-15097) and that required Class II work practices and controls must be used during such a demolition.

Case 2: A radiological contamination area/asbestos regulated area was established around 222-U for removal of demolition debris. Surrounding that area, a radiological buffer area (RBA) was established. Four ERDF containers to be loaded with suspected asbestos contaminated construction debris were staged in the RBA. A heavy equipment operator wearing appropriate protective equipment, including a lapel sampler, loaded debris from the asbestos regulated area into containers in the RBA. When the containers were filled, other personnel without complete asbestos PPE entered the RBA to seal and cover the containers.

Analysis: Risk of asbestos exposure to workers in both of these cases was low. In case 1, verbal communications among supervisors and the asbestos competent person were misunderstood. However, even a cursory review of the work site would have revealed the presence of floor tiles, which then should have caused someone to question whether they had been determined to be ACM.

In case 2, people reviewing the job failed to realized that covering and sealing the containers should have been classified as asbestos Class II construction work and thus did not prescribe adequate protective equipment for workers performing that task.

Recommendations: Prior to demolishing a structure, an asbestos competent person, a facility/project occupational safety and health representative, engineer, field supervisor, and

others as necessary should conduct a visual pre-demolition field inspection to ensure that all hazards have been identified, appropriate hazard controls implemented, and that the structure has been adequately prepared for demolition.

All work involving asbestos must be reviewed thoroughly by an asbestos competent worker and Occupational Safety and Health personnel to ensure appropriate controls are applied for all phases of the work.

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References: Occurrence Report EM-RL--PHMC-CENTPLAT-2005-0004
HNF-RD-15097 "Asbestos Control-Construction Industry"